



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,388	10/17/2001	Wayne John Harrison	JAMES-014B	6815
7663	7590	12/01/2004	EXAMINER	
STETINA BRUNDA GARRED & BRUCKER 75 ENTERPRISE, SUITE 250 ALISO VIEJO, CA 92656			MUSSEY, BARBARA J	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,388

Applicant(s)

HARRISON, WAYNE JOHN

Examiner

Barbara J. Musser

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose treating the side of the polyester that is metallized. While the example indicates that a film that is metallized on one side is chemically treated, and does not indicate which side is treated, one in the art reading the reference as a whole would conclude the film was treated in the opposite side of the metallization as the entire specification indicates the treatment and metallization occurs on different sides. Even if the example were taken to show that chemical treatment occurs on the metallized side, this is not evidence that the specification disclosed corona treating the metallized side.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1733

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownlee(EP 0319252A2) in view of Olvey(WO 90/06222) and Peers, Jr. et al.(U.S. Patent 4,544,597).

Brownlee discloses forming a corrugated board by bonding a metallized polyester film to a paper liner and then adhering the paper liner to a corrugated web.(pg. 4, ll. 56- Pg. 5, ll. 5) The reference does not disclose corona treating or chemically treating the side of the film opposite the metallized layer prior to bonding it to the paper liner. Olvey discloses that corona treatment or chemical treatment of polymer films creates minute cracks in the film, resulting in a greater bonding area.(Pg. 9, ll. 11-17) It would have been obvious to one of ordinary skill in the art at the time the invention was made to corona or chemically treat one side of the polymer film prior to bonding to create a larger surface area for bonding. One in the art would appreciate that the corona or chemical treatment would occur on the side opposite the metallized side so that no damage was done to the metal layer.

Brownlee does not specifically state that the liner is applied to the corrugated sheet while corrugating the sheet but rather states it occurs in an in-line process where the liner is applied to one side of a corrugated web. Peer, Jr. et al. discloses a corrugating apparatus wherein the liner is applied to the corrugated sheet while corrugating the sheet, the liner comprising a metallized polymer film laminated to a paper liner.(Figure 2; Col. 2, ll. 29-34) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the corrugating apparatus of

Art Unit: 1733

Peer, Jr. et al. to form the corrugated board of Brownlee and Olvey since the corrugating apparatus of Peer, Jr. et al. is intended for use in bonding metallized polymer/paper laminates to corrugated webs, is economical, and does not significantly alter conventional corrugating apparatus rendering it easy to use.(Col. 1, ll. 35-39; Col. 2, ll. 29-34; Col. 8, ll. 18-23)

Regarding claims 2 and 8, Olvey discloses that biaxially oriented polyester can be used as the polymer film.(Pg. 4, ll. 10) Peer, Jr. et al. discloses that orienting the film increases the tear strength.(Col. 6, ll. 15-19) It would have been obvious to one of ordinary skill in the art at the time the invention was made to biaxially orient the polyester film of Brownlee since it is known to use biaxially oriented film in corrugated laminates(Olvey; Pg. 4, ll. 10) and since orientation increases the tear strength of the film.(Peer, Jr. et al.; Col. 6, ll. 15-19)

Regarding claims 3, 4, 8, and 9, Peer, Jr. et al. discloses pre-heating the liner laminate via a heating roll 4.(Figure 2)

Regarding claims 4 and 9, the liner is adhered to the corrugated web using an adhesive used for corrugating.(Peer, Jr. et al.; Col. 3, ll. 18)

Regarding claims 5 and 10, the corrugated web is fed from a pair of corrugating rolls.(Peer, Jr. et al.; Figure 2)

Response to Amendment

5. The declaration under 37 CFR 1.132 filed 12/15/03 is insufficient to overcome the rejection of claims 1-10 based upon Brownlee, Olvey et al. and Peers, Jr. et al. as set

Art Unit: 1733

forth in the last Office action because: it appears to be a method of forming a different product. The declaration appears to indicate the solution to the problem of the prior art is to have the metal size of the metallized polyester adjacent the paper and to corona treat the polyester so it forms a better bond as in paragraph 19 of the declaration.

However, bonding the corona treated surface would require the corona treated side to face the paper as this is the only surface it can be bonded to, and therefore one side of the polyester would be both corona treated and metallized, but the claims and specification require the metallization to be on the opposite side of the polyester from the corona treatment. While this declaration may be evidence of the unobviousness of treating the metallized side, it is not evidence of unobviousness for treating the opposite side from the metallized side as it is not directed to that invention and since the claims encompass treating either the metallized side or the side opposite it, a rejection of the claims for the metallized side being opposite the treated side is not supported by this declaration.

Response to Arguments

6. Applicant's arguments filed 11/01/04 have been fully considered but they are not persuasive.

In response to applicant's argument in the declaration that the references do not disclose a solution to the problems applicant was trying to overcome or suggest the problems at all and to applicant's argument that Peer, Jr. et al. fails to consider the effect of heat on the corrugated board, the fact that applicant has recognized another

Art Unit: 1733

advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.

See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Regarding applicant's argument that corrugating equipment generally runs at 175C and therefore polyester, with a melting point of 145C, could not be used in such equipment, applicant's own specification indicates the operating temperature of a corrugator to be 130-160C[0049], indicating that at typical corrugating temperatures, if the temperature were chosen judiciously, even applicant's polyester would not melt. Additionally, polyester is not a specific compound, but a generic name for a type of polymer, the melting temperature of which is dependent on the molecular weight. If applicant is suggesting that his invention is that the lower melting point polyesters can be used in a process that is normally conducted above their melting points, it is suggested that applicant claim the melting point of the polyester and the process temperature.

Regarding applicant's argument about the polymer's response to heat changing with treatment, applicant's arguments are not commensurate in scope with the claims. It is noted that applicant's own specification does not indicate that the treatment changes the polymer's response to heat but only that it changes its surface tension.[0037]

Regarding applicant's arguments as to the Harrison Declaration, absent evidence that MP-531 is chemically treated on the same side as it is metallized, the declaration is considered to be inconsistent with the claimed invention. It is noted that even if

Art Unit: 1733

evidence is provided that MP-531 was chemically treated on the same side as it was metallized, this is not evidence it was known to CORONA treat the metallized side.

Regarding applicant's arguments that there is no requirement that the treatment be on the opposite side of the metallization, one in the art reading the specification as a whole would find no evidence that the treatment occurred on the same side as the metallization since the specification, the abstract, and the original claims all refer to the invention being the metallization being on the opposite side from the treatment as in paragraphs [0015]-[0018].

Regarding applicant's arguments as to the temperature at which the corrugator is run and the increase in melting temperature of the polymer, such is not claimed. If this treatment results in the unexpected rise in melting temperature of the polymer, data to that effect needs to be provided, and the original melting temperature of the polymer and run temperature of the corrugator need to be claimed.

Regarding applicant's argument that the process of Brownlee would not work, applicant has shown no evidence of such, merely supposition.

Regarding applicant's argument that Brownlee does not disclose how to avoid the problem of the polyester film melting in the corrugator, polyester is a generic material and the molecular weight determines the melting point. Many different types of polyester exist with different melting points, some as high as 175C as a search of the internet shows.

Regarding applicant's argument that Peer, Jr. does not disclose the polymer as polyester, Brownlee, the primary reference, discloses the plastic is polyester. However,

Art Unit: 1733

Peer, Jr. et al. also discloses it is polyester since it discloses the use of polyethylene terephthalate, (Col. 5, ll. 66) which is a type of polyester.

Regarding applicant's argument that Peer, Jr. et al. only discloses portions of the polymer film as being metallized, applicant's claims only states that one side is metallized. They do not require that entire side to be metallized.

In response to applicant's argument that one would not look to Olvey to fix problems with polyester's inability to handle excess heat, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

It is suggested that applicant file a CIP, amending the specification to indicate the treatment occurs to the same side as the metallization since the declaration appears to indicate that this is the invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571)-272-1156. The fax phone

Art Unit: 1733

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BJM


BLAINE COPENHEAVER
SENIOR ADVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700